

WHAT IS CLAIMED IS :

1 A portable computer system comprising:  
2 an indicating device having a plurality of light emitting devices activated according to a  
3 signal from the portable computer system; and  
4 a controller managing said indicating device to display power-on self-test (POST) codes in  
5 response to operating states of the portable computer system, the power-on self-test codes being  
6 generated in power-on self-test codes process by a basic input-output system (BIOS) of the computer  
7 system.

1 2 The portable computer system of claim 1, further comprising a key input device  
coupled to said controller, said key input activating a display of power-on self-test codes on the  
3 indicating device in response to a key input signal from the key input device.

1 3. The portable computer system of claim 2, with the key input device being a keyboard  
2 of the portable computer system.

1 4. The portable computer system of claim 1, with the operating states comprising of a  
2 power on or off state, number lock state, a capital letter state, a scroll lock state, an access state of  
3 a disk drive, and a charge state of the battery.

5. The portable computer system of claim 4, with said indicating device being a plurality of light emitting diodes, with each power-on self-test code corresponding to a specific light emitting diode on the portable computer.

6. The portable computer system of claim 5, with said light emitting diodes sequentially aligned along a surface of the portable computer according to an order of operating states being tested by the portable computer, the alignment accommodating a rapid view of a progress of the power-on self-test.

7. The portable computer system of claim 6, with the light emitting diodes indicating where an error has occurred in the portable computer system.

8. The portable computer of claim 1, said controller connected to a data bus located internally in the portable computer.

9. A portable computer system, comprising:  
an address decoder coupled to an address bus generating a latch control signal by decoding an address of an output port accommodating power-on self-test codes;  
a latch coupled to a data bus of the portable computer system latching the power-on self-test

codes from the data bus in response to the latch control signal;

an indicating device having a plurality of lighting devices indicating operating states of the portable computer system;

a controller generating an indicating control signal in response to the operating state; and

a selector sending either the indicating control signal or power-on self-test codes of the latch to said indicating device.

10. The portable computer system of claim 9, with the latched power-on self-test codes being outputted to the indicating device when the address decoder translates the address of the output port for power-on self-test codes.

11. The portable computer system of claim 9, with the controller managing the selector to output the power-on self-test codes latched in the latch during the power-on self-test process.

12. The portable computer system of claim 11, further comprising a key input device coupled to the controller, said controller regulating the selector to output the power-on self-test codes held temporarily until a key input signal response from the key input device during the power-on self-test process.

13. The portable computer system of claim 12, with the key input device being a

*Sub B2*  
2 keyboard of the portable computer system.

1 14. The portable computer system of claim 13, with said selector being a multiplexer, the  
2 output of said multiplexer being controlled by the controller.

*Sub A3*  
3 15. The portable computer of claim 14, with the lighting devices being a plurality of light  
emitting diodes displaying the power-on self-test codes in accordance with an order of the power-on  
self-test codes process.

*Sub B2*  
2 16. A method of displaying power-on self-test codes in a portable computer system,  
comprising the steps of:  
3 starting a power-on self-test process;  
4 generating power-on self-test codes;  
5 outputting the power-on self-test codes to a microprocessor to display the power-on self-test  
6 codes;  
7 testing each one of the elements of the portable computer system corresponding to the  
8 respective power-on self-test codes;  
9 determining whether the test is performed in safety;  
10 completing the power-on self-test process if the test is performed in safety in all of the  
11 elements; and

13 interrupting the power-on self-test process if the test is not performed in safety in any  
13 element.

1 17. The method of claim 16, with the outputted power-on self-test codes being displayed  
2 through an indicator having a plurality of light emitting diodes (LED).

1 18. The method of claim 16, with said step of outputting the power-on self-test codes  
2 being made to an input-output port within the portable computer.

1 19. The method of claim 16, said step of displaying the power-on self-test codes further  
2 comprising:

3 receiving data through a predetermined input-output port of said microprocessor of the  
4 portable computer;

5 generating an internal interrupt when the data is inputted to said microprocessor;

6 checking whether the data inputted through the predetermined input-output port of the  
7 microprocessor is a power-on self-test code;

8 displaying the power-on self-test code through an indicator when data inputted is a power-on  
9 self-test code; and

10 executing other interrupt routines when data is not a power-on self-test code.

*Sub 82*  
1 20. The method of claim 19, with said indicator being a plurality of light emitting diodes,  
2 with each power-on self-test code corresponding to a specific light emitting diode on the portable  
3 computer.

1 21. The method of claim 20, with said light emitting diodes sequentially aligned along  
2 a surface of the portable computer according to an order of operating states being tested by the  
3 portable computer, the alignment accommodating a rapid view of a progress of the power-on self-  
4 test.

1 22. The method of claim 16, the tested elements comprising a memory, disk drive, and  
2 graphics controller.

1 23. The method of claim 16, with the lighting devices continually displaying the power-  
2 on self-test codes during the power-on self-test process.